

REMARKS

Claims 1-31 are all the claims pending in the application. Claims 13, 20, and 24-29 are provisionally withdrawn from consideration pursuant to the election of species requirement, pending reconsideration.

Applicants have amended the specification to add detail to the government interest paragraph and to disclose a joint research agreement. As the present action is not on the merits, no fee is believed due for the adding of the joint research agreement statement. *See* 37 C.F.R. § 1.71(g)(2)(iii).

In general, embodiments of the invention are directed to a mixed donor-acceptor layer in combination with a pure acceptor layer and/or a pure donor layer, where the pure layer comprises one of the materials for the mixed layer:

- (1) requires mixed layer + "pure" acceptor layer,
- (2) requires mixed layer + "pure" donor layer,
- (3) requires mixed layer + "pure" acceptor AND donor layers.

Examples of devices having these features appear in FIGS. 1-3.

As a general proposition, Applicants believe the specifics of the Examiner's election of species rejection to be improper. The "third embodiment" cited by the Examiner is a general definition; there are no claims directed to the "ninth embodiment," which is a method; and each of the other "embodiments" is a species of FIGS. 1, 2, and/or 3.

For example, consider claim 1: The claim explicitly recites features of at least the first, second, third, fifth, and eighth "embodiments," as defined by the Examiner, and is generic to every embodiment except the "ninth embodiment," which is an unclaimed method.

Reconsideration of the scope of the election of species requirement is requested.

In any case, to fulfill Office rules, **Applicants elect the embodiment illustrated in Figure 1**, including independent claims 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19, 21, 22, 23, 30, and 31.

Claim 5 should also be considered, as the existence of a "fifth embodiment," as defined by the Examiner, is not a distinct species.

Pending reconsideration of the scope of the election of species requirement, claims 13, 20, and 24-29 are provisionally withdrawn.

Applicants submit that claim 1 is generic to claims 2 through 28. Although claim 24 is a separate independent claim, claim 24 could be rewritten to depend from claim 1, and includes all of the subject matter of claim 1. For example, both claims include:

- the first electrode;
- the second electrode;
- the photoactive region comprising:
 - a mixed layer that is a mixture of an organic acceptor material and an organic donor material, the layer having a thickness of not greater than 0.8 characteristic transport lengths; and
 - an unmixed layer in direct contact with the mixed layer comprising the acceptor material or the donor material, the unmixed layer having a thickness not less than about 0.1 optical absorption lengths.

In addition to these features, claim 24 adds an additional unmixed layer in direct contact with the mixed layer comprising the other of the acceptor material or the donor material (*i.e.*, claim 24 recites both an unmixed layer comprising donor material *and* an unmixed layer comprising acceptor material).

Upon allowance of claim 1, Applicants submit that claims 13, 20, and 24-28 should be reinstated.

Applicants authorize the Commissioner to charge any fees determined to be due with the exception of the issue fee and to credit any overpayment to Deposit Account No. 11-0600.

The Examiner is invited to contact the undersigned at (202) 220-4209 to discuss any matter concerning this application.

Respectfully submitted,
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